

Translation

## PATENT COOPERATION TREATY

## PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

526,893

(PCT Article 36 and Rule 70) Rec'd PCT/PTO 04 MAR 2005

Applicant's or agent's file reference  PCT02082	FOR FURTHER ACTION  See Form PCT/IPEA/416	
International application No.  PCT/JP2003/011359	International filing date (day/month/year)  05 September 2003 (05.09.2003)	Priority date (day/month/year)  05 September 2002 (05.09.2002)
International Patent Classification (IPC) or national classification and IPC  A61B 10/00		
Applicant  HITACHI MEDICAL CORPORATION		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>
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Date of submission of the demand  02 April 2004 (02.04.2004)	Date of completion of this report  04 August 2004 (04.08.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/011359

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:

- international search (under Rules 12.3 and 23.1(b))
- publication of the international application (under Rule 12.4)
- international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

The international application as originally filed/furnished

the description:

pages \_\_\_\_\_, as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the claims:

pages \_\_\_\_\_, as originally filed/furnished  
 pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the drawings:

pages \_\_\_\_\_, as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3.  The amendments have resulted in the cancellation of:

- the description, pages \_\_\_\_\_
- the claims, Nos. \_\_\_\_\_
- the drawings, sheets/figs \_\_\_\_\_
- the sequence listing (*specify*): \_\_\_\_\_
- any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- the description, pages \_\_\_\_\_
- the claims, Nos. \_\_\_\_\_
- the drawings, sheets/figs \_\_\_\_\_
- the sequence listing (*specify*): \_\_\_\_\_
- any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/JP 03/11359

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-17	YES
	Claims		NO
Inventive step (IS)	Claims	6-8, 11, 12, 14-17	YES
	Claims	1-5, 9, 10, 13	NO
Industrial applicability (IA)	Claims	1-17	YES
	Claims		NO

## 2. Citations and explanations

Document 1: JP 9-98972 A (Hitachi, Ltd.), 15 April 1997

Document 2: JP 2000-237194 a (Hitachi, Ltd.), 5 September 2000

Document 3: JP 9-231366 A (Oki Electric Industry Co., Ltd.), 5 September 1997

Document 4: JP 2002-522837 A (Aspen Technology, Inc.), 23 July 2002

Document 5: JP 2001-336975 A (Fuji Xerox Co., Ltd.), 7 December 2001

Claims 1 to 5, 9, 10, 13

Documents 1 and 2 disclose a photometric device for a living body that calculates a load signal from the difference between a measured signal and a predicted no-load signal, and investigates activity in a functional area of the brain by locally measuring change in a given functional area of the brain.

Meanwhile, documents 3 to 5 disclose features such as a technique wherein principal component analysis is carried out on multi-dimensional data, and the contribution of each characteristic vector is calculated, and the cumulative contribution is calculated.

Further, a person skilled in the art could easily combine features disclosed in documents 1 to 5.

## Claims 6 to 8, 12

A living body photometric device provided with a means which generates a stimulus reaction reference pattern indicating the reaction of a living body to task stimulus, superimposes the pattern on a stimulus task signal waveform, and displays the result on a display means is not disclosed in any of the documents cited in the international search report, nor would it be obvious to a person skilled in the art.

## Claim 11

A photometric device provided with a means which calculates the total average value of values representing the proportion of a stimulus task signal that is made up by each of a plurality of calculated measurement data, and displays the calculated total average value near a graph is not disclosed in any of the documents cited in the international search report, nor would it be obvious to a person skilled in the art.

## Claim 14

A photometric device provided with a means which separates the calculated contribution for individual measured signals into a right-side cranial component and a left-side cranial component and calculates the total average is not disclosed in any of the documents cited in the international search report, nor would it be obvious to a person skilled in the art.

## Claims 15 to 17

A photometric device provided with a calculation means which uses an average value for the right-side cranium and a total average value for the left-side cranium to calculate degree of hemispheric dominance

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

International application No.

PCT/JP 03/11359

indicating which of the left and right hemispheres of the brain of a subject reacts dominantly to a stimulus task is not disclosed in any of the documents cited in the international search report, nor would it be obvious to a person skilled in the art.